REMARKS

No claims have been added or cancelled. Claim 81 has been amended based on the Examiner's suggestion (thank you), however this amendment does not raise new issues for search or examination. The Applicant respectfully requests reconsideration of this application in view of the following remarks.

35 U.S.C. §121 Election/Restrictions

The Examiner has withdrawn claims 67-71, 78, and 83-97 from consideration as being directed to a non-elected invention.

Applicant respectfully submits that withdrawing at least claim 83 is improper, because it is inconsistent with 37 CFR 1.145.

> 37 C.F.R. 1.145. Subsequent presentation of claims for different invention. If, after an office action on an application, the applicant presents claims directed to an invention distinct from **and independent** (emphasis added) of the invention previously claimed, the applicant will be required to restrict the claims to the invention previously claimed if the amendment is entered, subject to the reconsideration and review as provided in §§ 1.143 and 1.144.

MPEP 802.01 states that "*[t]he term "**independent**" (i.e., not dependent) means that there is **no disclosed relationship between the two or more subjects disclosed**, that is, they are unconnected in design, operation, or effect ...*". Applicants submit that this is not the case for the invention defined by claim 83. Claim 83 and the originally presented claims are not unconnected in design, operation, or effect. Further, the Examiner did not provide any reasons why claim 83 is distinct from and independent of the invention previously claimed, as he is required to do by MPEP 821.03, and paragraph 8.04.

Accordingly, at least claim 83 and probably some of its dependent claims should not have been withdrawn from consideration.

Specification

The Examiner has objected to the amendment filed 11/08/04 under 35 U.S.C. 132 because it allegedly introduces new matter into the disclosure.

Again, Applicant respectfully disagrees. Claim 65 states "**the second compartment to transfer a net amount of heat to the first compartment**". The Examiner's arguments are that the hydrogen storage system 100 **overall (i.e., both the first and the second compartments)** is balanced, thermally neutral, etc. However, claim 65 states that **the second compartment transfers a net amount of heat to the first compartment**. Claim 65 does not state that the overall hydrogen storage system 100 transfers net heat out. FIG. 1 clearly shows **heat 150 being transferred from the second compartment 130 to the first compartment 110**. Accordingly, no new matter has been added to the disclosure, and the objection should be withdrawn.

Claim Language Suggestion

The Examiner suggested that "laptop" be changed to "laptop computer" in claim 81. Applicant thanks the Examiner for this suggestion and have made this amendment. This amendment should not raise new issues for search or examination, since the Examiner suggested the amendment.

35 U.S.C. §112 Rejection

The Examiner has rejected claims 65-66, 72-77 and 79-82 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement due to inclusion of the phrase "to transfer a net amount of heat".

Applicant respectfully submits that this rejection should be withdrawn. The discussion above is pertinent to this point.

35 U.S.C. §103(a) Rejection – Long and Basch

The Examiner has rejected claims 65-66, 72-77, 79 and 82 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,702,491 issued to Long et al. (hereinafter "Long") in view of U.S. Patent No. 3,607,066 to Basch (hereinafter "Basch"). Without admitting that Long and Basch should be combined, Applicant respectfully submits that the above-identified claims are allowable over any combination of Long and Basch.

Claim 65 is directed to an apparatus comprising, "*a first compartment including an endothermic hydrogen generator; a second compartment including an exothermic hydrogen generator, the second compartment to transfer a net amount of heat to the first compartment; and a fuel cell coupled to the generators to receive hydrogen and to generate electrical power*". Any combination of Long and Basch does not teach or suggest an exothermic hydrogen generator in one compartment transferring heat to an endothermic hydrogen generator in another compartment.

Long discusses that a second chemical hydride may heat a primary chemical hydride. However, Long teaches that the primary and second chemical hydrides be included in the same container.

Basch discusses simultaneous production of oxygen and hydrogen where the heat liberated in producing the oxygen is utilized in hydrogen production. However, Basch does not teach or suggest an exothermic hydrogen generator, let alone using an exothermic hydrogen generator in one compartment to transfer heat to an endothermic hydrogen generator in another compartment. Applicant also submits that it doesn't

matter if Basch discusses that other equipment or devices for the generation of hydrogen may be included, since Basch does not teach or suggest using an exothermic hydrogen generator.

The Examiner has stated that it would have been obvious to incorporate the specific compartments of Basch in the hydrogen generating apparatus of Long. Applicant respectfully disagrees.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Firstly, Long and Basch do not contain any suggestion that they be combined, or that they be combined in the manner suggested by the Examiner. Secondly, the combination proposed by the Examiner goes against the express teachings of Long. Long discusses that the second chemical hydride or chemical composition should be positioned in the container **between** the first chemical hydride and an outlet of the water conduit in order to **delay hydration** of the first chemical hydride until it has reached a temperature sufficient to prevent the first chemical hydride from undergoing an unstable exothermic reaction (see e.g., column 3, lines 18-30). That is, Long expressly **teaches away** from the combination proposed by the Examiner.

Thirdly, even if combined, which does not even seem appropriate, the combination still does **not teach all claim limitations**. In particular, there is absolutely no teaching or suggestion, either in the references themselves, or in the knowledge available to one of ordinary level of skill in the art, to include an exothermic hydrogen generator in one compartment to transfer heat to an endothermic hydrogen generator included in another compartment.

The Examiner appears to be using 20-20 hindsight with the Applicant's own disclosure serving as a guide or roadmap, in order to arrive at the invention defined by claim 65. This is of course impermissible.

For at least these reasons, claim 65 and its dependent claims are believed to be allowable over Long and Basch. Claim 83 and its dependent claims are believed to be allowable for similar reasons.

35 U.S.C. §103(a) Rejection – Basch in view of Long

The Examiner has rejected claims 65-66, 72-77, 79 and 82 under 35 U.S.C. §103(a) as being unpatentable over Basch in view of Long.

The Applicant respectfully submits that the present claims are allowable over Basch in view of Long. The discussion above is pertinent to this point.

35 U.S.C. §103(a) Rejection – Long et al. in view of Basch; and/or Basch in view of Long et al, and further in view of Corey et al.

The Examiner has rejected claims 80-81 under 35 U.S.C. §103(a) as being unpatentable over Long in view of Basch and/or Basch in view of Long, as applied to claim 65 above, and further in view of U.S. Patent Publication No. 2004/0209137 issued to Corey et al.

As previously discusses, Long and Basch should not be combined, and in particular should further not be combined in the manner proposed by the Examiner. Applicant therefore does not address the propriety of the rejections of these dependent claims. Similarly, the Applicant does not address the propriety of the combination of the references, or other aspects of the rejections, as the claims have been showed to be allowable over the references.

Conclusion

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Applicant respectfully requests that the rejections be withdrawn and the claims be allowed at the earliest possible date.

Request For Telephone Interview

The Examiner is invited to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

Request For An Extension Of Time

The Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

Charge Our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 4-26-05

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